

Fatality Narrative

Worker Crushed between Counterweight and Mast Brace while Performing Maintenance on Construction Hoist*

Industry: Structural steel erection
Occupation: Craftsman boilermaker
Task: Maintenance on construction hoist
Type of Incident: Machinery/struck by

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On January 26, 2002, during turnaround operations at an oil refinery, a 28 year-old craftsman boilermaker performing maintenance on a temporary construction material/personal hoist or elevator was crushed and killed when he was struck by the hoist counterweight. The victim was working from the top of the elevator cage roof where he was greasing the elevator rollers, which were located along the corner legs of the mast and at the bottom of the counterweight. There were two workers in the elevator box who were serving as a signal person and an operator. The three workers had agreed to communicate by verbal and hand signals with the worker on the roof when to move the elevator upwards. At one point, the elevator operator thought he heard the worker on the cab roof give a signal to move the elevator up and he did so. When the elevator went up, the counterweight came down. The worker was crushed between the mast cross bracing and the counterweight and/or the counterweight hitch on the top of the elevator cab. Rescue workers removed the victim within minutes and he was taken to hospital where he was pronounced dead. None of the workers had read the elevator manufacturer's maintenance manual or safety instructions. They were not aware that the correct procedure for working from the roof of the elevator involved moving the operator's control box to the top where the person servicing the elevator has control of it. Also, they did not know that maintenance operations could be performed in different ways that would not have put a worker at risk of injury. The victim had worked for his employer for six years. He did not belong to a union.

Requirements/Recommendations

(! Indicates items required by law)

- ! Work can only be conducted from the roof of a hoist's cage if that worker has control of the operation of the hoist, including the ability to lock out the power source.
- ! Train hoist/elevator maintenance workers in proper maintenance and safety procedures on specific models, as they vary depending on model and year of manufacture.
- ! Have a supervisor ensure that workers follow elevator manufacturer's specifications for safely performing maintenance.

State Wide Statistics: This was the 5th work-related fatality in Washington State during the year 2002 and was the 1st construction fatality of the year.

This bulletin was developed at the Washington State Department of Labor and Industries to alert employers and employees in a timely manner of a tragic loss of life of a worker in Washington State. We encourage you to consider the above information as you make safety decisions for or recommendations to your company or constituency. The information in this notice is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or conclusions regarding the cause of the fatality.

Developed by the Washington State Fatality Assessment and Control Evaluation (FACE) and Washington Industrial Safety and Health Act (WISHA) Programs at the WA State Dept. of Labor & Industries. For more information, contact the Safety and Health Assessment and Research for Prevention (SHARP) Program, 1-888-667-4277, <http://www.lni.wa.gov/sharp/face>.